

REMARKS/ARGUMENTS

Reconsideration of this application in light of the above amendments and following comments is courteously solicited.

With regard to the rejection of claims 12-17 under 35 U.S.C. 112, first paragraph, Applicants have corrected the inadvertent error and has now cancelled the term "translucent" in favor of the term "transparent". The foregoing amendment overcomes the examiner's rejection under 35 U.S.C. 112, first paragraph.

With regard to the rejection of previously submitted claims 12-17 under 35 U.S.C. 103 over Nakamata in view of Azdasht, Applicants respectfully request the examiner to reconsider this rejection in light of the claim amendments and the following comments.

Independent claim 12 has now been amended so as to set forth that (1) the machining head has a rotatably mounted transparent pressure element (2) pressing the transparent pressure element onto the upper workpiece showing a three-dimensional shape touch surface for the transparent pressure element facing the machining head and (3) the compression in guiding is accomplished simultaneously with a three-dimensional motion of the machining head and a dosage of the compression being exerted to the upper workpiece by the machining head. It is respectfully submitted that claim 12 as amended clearly defines over the prior art.

The object of the present invention is defined as to propose a possibility which permits contour welding of workpieces made of plastic in a three-dimensional form without a special clamping device (section 0004). Figure 3 illustrates a principle of the 3D welding operation with two different positions of the machining head, which is guided along a weld seam on two different designed non-planar workpieces. Further

details are pointed out in the affiliated description of the drawing (Section 0021 line 1-9). Other references are to be found in section 0007, 0009, 0010 and 0012 of the application. The upper workpiece is showing a three-dimensional shaped touch surface for the transparent pressure element facing the machining head and that a mechanical compression of the non-planar workpieces and a guiding of the laser beam are accomplished simultaneously with a three-dimensional motion of the machining head and a dosage of the compression being exerted to the upper workpiece by said machining head.

US 4,636,609 does not propose a method which permits contour welding of workpieces made of plastic in a three-dimensional form without special clamping devices being transparent for the laser beam. Nakamata teaches a process for joining a first plate made of a first kind of synthetic resin to a second plate of a second kind of synthetic resin (column 3 line 32 - column 5 line 21).

DE 43 19 742 A1 is directed to a method of bonding upper and lower workpieces, said method comprising a translucent pressure element in a machining head, wherein the pressure element contacts the upper workpiece and compresses said workpieces while guiding the laser beam. Azdasht is silent as to a method which allows three-dimensional welding operations. He is focused on flat workpieces along which the laser beam is driven (column 1 line 9 -20), wherein the machining head is permanently in contact with the even upper workpiece.

In light of the foregoing, it is not obvious to a person of ordinary skill in the art to search or to find suggestions or solutions for a method for spatially contour welding of workpieces made of plastic in a three-dimensional form within the two cited prior art documents. Both documents do not show

the subject matter of the amended claim 12. Furthermore the combination of the machining head of Nakamata with a translucent pressure element as taught by Azdasht does not directly lead to the proposed method for joining three-dimensional shaped workpieces, wherein the machining head is moved along a welding track or welding contour extending three-dimensionally.

In light of the foregoing, it is submitted that all of the claims as pending patentably define over the art of record and an early indication of same is respectfully requested.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,
Jie-Wei Chen et al.

By 

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I, Rachel Piscitelli, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on October 20, 2006.

